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In the Supreme Court

OF THE

United States

OCTOBER TERM, 1986

VERDEGAAL BROTHERS, INC.,
WILLIAM VERDEGAAL AND GEORGE VERDEGAAL,
Petitioners,

VS.

UNION OIL COMPANY OF CALIFORNIA,
BREA AGRICULTURAL SERVICES, INC.,
Respondents.

PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

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QUESTION PRESENTED

May the circuit court substitute its view of a specific fact issue (what is inherent in a term used in a particular prior patent) for that of the jury where (1) there was conflicting testimony of technical experts; and (2) the trial judge ruled on motions for summary judgment, directed verdict and judgment notwithstanding the verdict that the interpretation of a document was a jury determination?

PARTIES TO THE PROCEEDING

The petitioners are Verdegaal Brothers, Inc., William Verdegaal and George Verdegaal, now deceased, collectively called "Verdegaal" here. Verdegaal Brothers, Inc. has no parent, subsidiary or affiliated companies.

The respondents are Union Oil Company of California and Brea Agricultural Services, Inc., collectively called "Union Oil" here. Union Oil Company of California is a wholly-owned subsidiary of Unocal Corporation, a Delaware corporation whose stock is publicly traded. Brea Agricultural Services Inc. is a majority-owned subsidiary of Unocal Corporation, the remaining minority interest being owned by Robert J. Newell, an individual.

TABLE OF CONTENTS

	Page
Question presented	i
Parties to the proceeding	ii
Petition for a writ of certiorari to the United States Court of Appeals for the Federal Circuit	1
Opinions below	1
Jurisdiction	1
Constitutional provisions and statute involved	2
Statement of the case	2
Reasons for granting the petition	5
Conclusion	9
Appendix A	A- 1
Appendix B	A-10
Appendix C	A-11
Appendix D	A-14

TABLE OF AUTHORITIES

Cases

Page(s)

Anderson v. City of Bessemer, 470 U.S. 564 (1985) 8, 9
Dennison Mfg. Co. v. Panduit Corp., 106 S.Ct. 1578 (1986) 5
In re Arkley, 455 F.2d 586 (CCPA 1972) 7
In re Fielder, 471 F.2d 640 (CCPA 1973) 8
In re Rinehart, 531 F.2d 1048 (CCPA 1976) 7
In re Sarkli, Ltd., 721 F.2d 353 (Fed. Cir. 1983) 7
In re Zeidler, 682 F.2d 961 (CCPA 1982) 7
Inwood Lab v. Ives Lab, 456 U.S. 844 (1982) 8
Lavender v. Kurn, 327 U.S. 645 (1946) 8
Lawrence v. McCalmont, 43 U.S. (2 Howard) 426 (1844) 9
Reconstruction Finance Corp. v. Bankers Trust Co., 318 U.S. 163 (1943) 8
Verdegaal Brothers, Inc. v. Union Oil Company of California, 814 F.2d 628 (Fed. Cir. 1987) 1, 3, 4

Constitution, Statutes and Rules

United States Constitution, Art. 1, Sect. 8 2
United States Constitution, Seventh Amendment 2, 6
28 U.S.C. § 1254(1) 1
28 U.S.C. § 1295 6
35 U.S.C. § 102(e) 2, 3
Federal Rules of Civil Procedure Rule 52(a) 5, 7n, 8

Other Authorities

F.V. Filardi debate on the resolution *The Federal Circuit has Improperly Assumed the Rule of Fact Finder and Has Departed from the Standard of Appellate Review Under Rule 52(a), Fed.R.Civ.Proc.*, 112 F.R.D. 609 (1986) 6
G. Rich, *Thirty Years of this Judging Business*, 14 AIPLA Q.J. 139, 149 (1986) 7n
L. Zarfas, *Treatment of Technological Issues on Appeal: Scope of Review—Focus on Patent Cases Before the C.A.F.C.*, 66 J.Pat.Off.Soc'y. 407 (1984) 6

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Respondents.

PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

Verdegaal Brothers, Inc., William Verdegaal and George Verdegaal ("Verdegaal") petition for a writ of certiorari to review the judgment of the United States Court of Appeals for the Federal Circuit in this case.

OPINIONS BELOW

The opinion of the court of appeals is reported as *Verdegaal Brothers, Inc. v. Union Oil Company of California*, 814 F.2d 628 (Fed. Cir. 1987). There is no district court opinion reported.

JURISDICTION

The judgment of the court of appeals was entered March 12, 1987. The jurisdiction of this Court is invoked under 28 U.S.C. § 1254(1).

CONSTITUTIONAL PROVISIONS AND STATUTE INVOLVED

Article I, Section 8, of the United States Constitution provides as follows:

> "Congress shall have the power: . . .
>
> To promote the Progress of Science and the useful Arts by securing for limited items to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."

The Seventh Amendment to the Constitution provides:

> In suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by a jury, shall be otherwise reexamined in any court of the United States, than according to the rules of the common law.

The patent law provides, in 35 U.S.C. § 102:

> A person shall be entitled to a patent unless—
>
> . . . .
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent . . .

STATEMENT OF THE CASE

Verdegaal sued Union Oil for patent infringement in the Eastern District of California. The primary defense raised by Union Oil was that a prior patent to Stoller barred the Verdegaal patent.

The Verdegaal patent claims an improvement in a process for making a liquid fertilizer,[1] The key to the improvement is provid-

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[1] In a process for making a concentrated liquid fertilizer by reacting sulfuric acid and urea, to form an end product, the improvement comprising:

a. providing a non-reactive, nutritive heat sink, capable of dissipating the heat of urea and sulfuric acid, in an amount comprising:

ing a heat sink to dissipate heat generated by a chemical reaction. The process improved upon had the same chemical reaction, but it was too slow for commercial manufacture. By using the heat sink, the process was economically feasible.

Union Oil bought the liquid fertilizer from Verdegaal until it built a plant to carry out the same improved process as in the Verdegaal patent. It defended the charge of infringement by stating the invention of the Verdegaal patent was described in a patent to Stoller which was filed before the invention by Verdegaal, and the patent is therefore invalid under 35 U.S.C. § 102(e).

The Stoller patent relates to phosphorus containing fertilizers, not the urea and sulfuric acid fertilizer of Verdegaal. It has nothing to do with a heat sink. It nowhere mentions a heat sink. It does, however, include two paragraphs which the court below held were a complete anticipation of the Verdegaal invention. *Verdegaal*, 814 F.2d at 632. Example 8 of the Stoller patent [2] uses the words "slowly" or "slow" four times, indicating nothing different from the process specifically improved upon by Verdegaal. It is undisputed that Example 8 shows no heat sink. The other para-

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b. adding water to the heat sink in an amount not greater than 15% of the end product,

c. adding urea to the mixture in an amount of at least 50% of the total weight of the end product,

d. adding concentrated sulfuric acid in an amount equal to at least 10% of the total weight of the end product.

[2] *EXAMPLE 8*—653 grams of urea was placed in a beaker and moistened with 20 grams water while slowly stirring. To this mass was added 327 grams of commercial 66 Be sulfuric acid in the following manner: Acid was added slowly with slow agitation until approximately 15% of the addition was completed. At this point the mass had liquified into a mixable slurry, and the speed of agitation was increased to a mild level. Slow addition of acid was continued until all the acid was incorporated into the mass. Stirring was continued for a few minutes, then stopped while the material cooled and entrained air escaped. The product was a viscous, water-white liquid analyzing 30-0-010S, with a pH of 1.5; on dilution with water no heat was evolved.

graph relied upon in the court below is quoted at 814 F.2d 632.[3] It too stresses that the reaction must be conducted "slowly." The purpose of a "heel of liquid" is precisely stated to allow "manufacture to be conducted in a stirred fluid mass."

What this means is that the heel eases stirring, according to Dr. Bahme, Verdegaal's technical expert. Stoller was putting "the acid into straight urea fertilizer; that was very viscous" (A-11). The ingredients were a "granular or pelleted urea plus some acid." By having a stirrable fluid mass, Stoller "was trying to obtain better stirring qualities." (A-12). Stoller made no mention of a heat sink. If he had recognized its importance he would have "elucidated on it, explained it further in his patent application . . ." (A-12).

Stoller did not describe the claimed invention because "he's talking about first of all experimental lab scale in a beaker . . . which may not be adapted to large-scale production. And secondly, he still is slowly adding the sulfuric acid while stirring right in that same [place] where he's doubling the batch." (A-12).

The Court below ignored this testimony about the failure to provide the claimed heat sink, stating: "Even assuming Stoller did not recognize that the heel of his process functioned as a heat sink, that property was inherently possessed by the heel in his disclosed process, and, thus, his process anticipates the claimed invention." *Verdegaal*, 814 F.2d at 633.

The same argument was made by Union Oil to the district court three times. First was a motion for summary judgment before trial. Second was a motion for directed verdict at the close of Verdegaal's case. Third was a motion for judgment notwithstanding the jury's verdict rejecting the Stoller argument. All

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[3] Column 7 line 30 of Stoller states:

Once a batch of liquid product has been made, it can be used as a base for further manufacture. This is done by placing the liquid in a stirred vessel of appropriate size, adding urea in sufficient quantity to double the size of the finished batch, adding any water required for the formulation, and slowing adding the sulfuric acid while stirring. Leaving a heel of liquid in the vessel permits further manufacture to be conducted in a stirred fluid mass.

three motions were denied, leaving the jury's determination as final on the facts.

The law on anticipation is clear, and no dispute has ever been raised about the instruction to the jury on this point.[4] The jury considered the law, applied it to the facts of this case, and reached a verdict for Verdegaal. The Federal Circuit reversed, stating: "Under the instructions of this case, this conclusion could have been reached only if the jury found that the Stoller patent did not disclose each and every element of the claimed inventions. Having reviewed the evidence, we conclude that substantial evidence does not support the jury's verdict, and, therefore, Union Oil's motion for JNOV on the grounds that the claims were anticipated should have been granted."

In short, the Court weighed the evidence and substituted its view of what was inherent in the Stoller patent for that of the jury.

REASONS FOR GRANTING THE PETITION

There is a growing chorus of complaint about the judicial fact finding of the Court of Appeals for the Federal Circuit. Last term, this Court granted certiorari, vacated the judgment of the Federal Circuit and remanded for consideration of Rule 52(a) of the Federal Rules of Civil Procedure in the case of *Dennison Mfg. Co. v. Panduit Corp.*, 106 S.Ct. 1578 (1986). There the Federal Circuit had substituted its view of the facts for that of the district court.

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[4] "Under the patent laws, a patent claim is anticipated, that is, it is not new, when each element of the claim is found, either expressly or inherently described in a single prior art reference. In other words, the reference must be to one document.

Under the patent laws, the claims of the 343 patent are valid unless, before the Verdegaals made the invention in the 343 patent, the same invention was made by someone else who did not abandon, suppress, or conceal it. If you find that either Dr. Young or Union Oil—Dr. Young of Union Oil or Harold Hartung, or both, made the invention claimed in the 343 patent before the Verdegaals and did not abandon, suppress or conceal it, the claims of the 343 patent are invalid." (A-14).

The same problem of judicial fact finding appears here, although it is more egregious in view of the Seventh Amendment guarantee of a jury trial of facts. This case presents the question of whether the jury is the determiner of facts in the Federal Circuit as it is in all other circuits.

Commentators have also raised the issue of judicial fact finding in the Federal Circuit. See, F.V. Filardi debate on the resolution *The Federal Circuit has Improperly Assumed the Rule of Fact Finder . . .*," 112 F.R.D. 609 (1985);[5] and L. Zarfas, *Treatment of Technological Issues on Appeal: Scope of Review—Focus on Patent Cases Before the C.A.F.C.*,[6] 66 J.Pat.Off.Soc'y. 407 (1984).

It is not surprising that the Federal Circuit routinely substitutes its view of the facts for that found below, given its heritage. In 1982, Congress merged the Court of Claims and the Court of Customs and Patent Appeals to form the first Court of Appeals without geographic limitation. The jurisdiction of the two predecessor courts has never included review of jury trials, so whatever collective experience on appeals of jury verdicts those judges had when the Federal Circuit was formed necessarily came from sources outside the predecessor Courts.

However, notwithstanding the complete lack of experience of the predecessor courts regarding jury trials, the jurisdiction of the Federal Circuit was enlarged to include appeals from *every* jury trial in cases involving patents. 28 U.S.C. § 1295. It will take time and supervision by this Court for the Federal Circuit to comprehend the level of trust put in juries to determine facts under the Seventh Amendment of the Constitution.

Historically, the Court of Customs and Patent Appeals had no hesitation in substituting its interpretation of a patent for the

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[5] "All I know is that there are a significant number of . . . [members of the] patent trial bar, who are of the firm conviction that the court has engaged in excessive fact finding." 112 F.R.D. at 611.

[6] Appellate review should "be limited to ascertaining whether or not such a determination [of obviousness] was supported by substantial evidence." 66 J.Pat.Off.Soc'y. at 412.

finding below.[7] For example, in *In re Arkley*, 455 F.2d 586 (CCPA 1972), the Board of Appeals of the Patent Office held that a prior patent anticipated the claims in question. The Board did not discuss the case law because "the issue [of anticipation] is essentially a factual one". *Id.* at 589. The CCPA looked at the identical words in the claim in issue and the prior patent and said: "In this case we have no difficulty in deciding that the portions of the Flynn reference relied upon by the Patent Office do not identically describe the claimed subject matter." *Id.* at 588. In short, the CCPA substituted its view of the words for that of the trier of fact.

Likewise, in *In re Rinehart*, 531 F.2d 1048, 1053 (CCPA 1976), the administrative board stated flatly: "However, appellant's allegations are not supported by any evidence." The CCPA reversed, stating: "The evidence now of record, in our view, does support [appellant's] allegations." *Id.* at 1053. Again, a plain substitution of the appellate court's view of the facts for that of the tribunal below.

In re Zeidler, 682 F.2d 961 (CCPA 1982), involved a determination of the patentability of a dye. The patent examiner cited prior patents that the court conceded "establish prima facie obviousness." The patent examiner's findings were reversed on the facts. "Accordingly, weighing all the facts, we hold that the record establishes that the claim 8 dye would have been unobvious . . . ." 682 F.2d at 967. No deference to the fact finder was given at all.

Judicial fact finding by the Federal Circuit continues in trademark cases as well. In *In re Sarkli, Ltd.*, 721 F.2d 353 (Fed. Cir. 1983), the administrative board looked at a definition in Webster's dictionaries and found the factual meaning of a word as equivalent to another term. The Federal Circuit reversed, saying

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[7] "In the CCPA, we were not reviewing trials, and Rule 52(a) was not applicable. Or if it was, we ignored it. Reviewing the PTO Boards, our attitude was we reversed them if they were wrong. In that regard, we did not act like the Circuit Courts of Appeal." G. Rich, *Thirty Years of This Judging Business*, 14 AIPLA Q.J. 139, 149 (1986).

the defined word "is not the equivalent" of the other term. *Id.* at 355. Again, plain substitution of its view of the facts.

Even where the record is silent below on the facts, the CCPA would review the evidence and find the facts as it chose rather than remanding for specific findings. In *In re Fielder*, 471 F.2d 640, 645-6 (CCPA 1973), the court considered an affidavit regarding patentability. The court said: "While we do not have the benefit of the board's specific findings of insufficiency of the affidavit evidence . . . ." it went on to review the evidence and conclude: "[W]e have no difficulty determining that the affidavit evidence is not convincing of patentability."

Given this background, it is expected that fact finding by the Federal Circuit will continue unless this Court exercise its supervisory power. This Court has made it clear that "[w]here there are two permissable views of the evidence, the fact finder's choice between them cannot be clearly erroneous." *Anderson v. City of Bessemer*, 470 U.S. 564, 574 (1985). That case related to Rule 52(a), but the requirement can only be stronger for finding error in a jury verdict. To reverse a jury verdict, there must be a complete absence of probative facts to support the verdict, *Lavender v. Kurn*, 327 U.S. 645, 653 (1946). "Determining the weight and credibility of the evidence is the special province of the trier of fact." *Inwood Lab v. Ives Lab*, 456 U.S. 844, 856 (1982). There are only two possibilities for the inherence of the Stoller paragraphs. In fact, either Stoller's liquid left in the beaker is inherently a "non-reactive, nutritive heat sink" provided to improve the manufacture of urea-sulfuric acid liquid fertilizer, as recited in Claim 1 of the Verdegaal patent, or it is not. The jury held it is not in the "main event." *Anderson v. City of Bessermer City, N.C.*, 470 U.S. at 575 (1985). If the Federal Circuit believes that it is, it can only remand for another jury to determine the question if there is no support for the first jury determination. It may not simply replace its view of that fact for the jury's. "At law the jury's verdict settles issues of fact and defines rights, subject only to questions of law." *Reconstruction Finance Corp. v. Bankers Trust Co.*, 318 U.S. 163, 170 (1943). Whatever the truth is about the heat sink, " . . . it was a mere question of fact for the consideration of the jury. . . . They have found a verdict for the

plaintiffs, and we are not at liberty to disturb it in a court of error." *Lawrence v. McCalmont*, 43 U.S. (2 Howard) 426, 453 (1844). Here, the jury reached its verdict after considering the conflicting testimony and the instructions on the law from the district judge. The trial judge carefully considered the same arguments on three occasions and deferred to the jury for its determination. "Duplication of the trial judge's efforts in the court of appeals would very likely contribute only negligibly to the accuracy of fact determination at a huge cost in diversion of judicial resources." *Anderson* at 574-75.

CONCLUSION

The Seventh Amendment is violated where a Court of Appeals substitutes its judgment of the facts for that of the jury. Certiorari should be granted to review the decision of the Federal Circuit.

Respectfully submitted,

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(Appendix follow)

Appendix A

United States Court of Appeals
for the Federal Circuit
Appeal No. 86-1258.

Verdegaal Brothers, Inc.,
William Verdegaal, George Verdegaal,
Appellees,

vs.

Union Oil Company of California,
Brea Agricultural Services, Inc.,
Appellants.

Decided: March 12, 1987

Before MARKEY, Chief Judge, and DAVIS and NIES, Circuit Judges.

NIES, Circuit Judge.

Union Oil Company of California and Brea Agricultural Services, Inc. (collectively Union Oil) appeal from a judgment of the United States District Court for the Eastern District of California, No. CV-F-83-68 REC, entered on a jury verdict which declared U.S. Patent No. 4,310,343 ('343), owned by Verdegaal Brothers, Inc., "valid" and claims 1, 2, and 4 thereof infringed by Union Oil. Union Oil's motion for judgment notwithstanding the verdict (JNOV) was denied. We reverse.

I

BACKGROUND

The General Technology

The patent in suit relates to a process for making certain known urea-sulfuric acid liquid fertilizer products. These products are made by reacting water, urea (a nitrogen-containing chemical), and sulfuric acid (a sulfur-containing chemical) in particular proportions. The nomenclature commonly used by the fertilizer industry refers to these fertilizer products numerically according to the percentages by weight of four fertilizer constituents in the following order: nitrogen, phosphorous, potassium, and sulfur.

Thus, for example, a fertilizer containing 28% nitrogen, no phosphorous or potassium, and 9% sulfur is expressed numerically as 28-0-0-9.

The Process of the '343 Patent

The process disclosed in the '343 patent involves the chemical reaction between urea and sulfuric acid, which is referred to as an exothermic reaction because it gives off heat. To prevent high temperature buildup, the reaction is conducted in the presence of a nonreactive, nutritive heat sink which will absorb the heat of reaction. Specifically, a previously-made batch of liquid fertilizer—known as a "heel"—can serve as the heat sink to which more reactants are added. Claims 1 and 2 are representative:

> 1. In a process for making a concentrated liquid fertilizer by reacting sulfuric acid and urea, to form an end product, the improvement comprising:
>
> a. providing a non-reactive, nutritive heat sink, capable of dissipating the heat of urea and sulfuric acid, in an amount at least 5% of the end product,
>
> b. adding water to the heat sink in an amount not greater than 15% of the end product,
>
> c. adding urea to the mixture in an amount of at least 50% of the total weight of the end product,
>
> d. adding concentrated sulfuric acid in an amount equal to at least 10% of the total weight of the end product.
>
> 2. The process of claim 1 wherein the heat sink is recycled liquid fertilizer.

Procedural History

Verdegaal brought suit against Union Oil in the United States District Court for the Eastern District of California charging that certain processes employed by Union Oil for making liquid fertilizer products infringed all claims of its '343 patent. Union Oil defended on the grounds of noninfringement and patent invalidity

under 35 U.S.C. §§ 102, 103. The action was tried before a jury which returned a verdict consisting of answers to five questions. Pertinent here are its answers that the '343 patent was "valid" over the prior art, and that certain of Union Oil's processes infringed claims 1, 2, and 4 of the patent. None were found to infringe claims 3 or 5. Based on the jury's verdict, the district court entered judgment in favor of Verdegaal.

Having unsuccessfully moved for a directed verdict under Fed. R. Civ. P. 50(a), Union Oil timely filed a motion under Rule 50(b) for JNOV seeking a judgment that the claims of the '343 patent were invalid under sections 102 and 103. The district court denied the motion without opinion.

II

ISSUE PRESENTED

Did the district court err in denying Union Oil's motion for JNOV with respect to the validity of claims 1, 2, and 4 of the '343 patent?

III

Standard of Review

When considering a motion for JNOV a district court must: (1) consider all of the evidence; (2) in a light most favorable to the non-moving party; (3) drawing all reasonable inferences favorable to that party; (4) without determining credibility of the witnesses; and (5) without substituting its choice for that of the jury's in deciding between conflicting elements of the evidence. *Railroad Dynamics, Inc. v. A. Strucki Co.*, 727 F.2d 1506, 1512-13, 220 USPQ 929, 936 (Fed. Cir.), *cert. denied*, 469 U.S. 871 (1984); *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1546, 220 USPQ 193, 197 (Fed. Cir. 1983). A district court should grant a motion for JNOV only when it is convinced upon the record before the jury that reasonable persons could not have reached a verdict for the nonmoving party. *Railroad Dynamics*, 727 F.2d at 1513, 220 USPQ at 936; *Connell*, 722 F.2d at 1546, 220 USPQ at 197.

To reverse the district court's denial of the motion for JNOV, Union Oil must convince us that either the jury's factual findings are not supported by substantial evidence, or, if they are, that those findings cannot support the legal conclusions which necessarily were drawn by the jury in forming its verdict. *See Perkin-Elmer Corp. v. Computervision Corp.*, 732 F.2d 888, 893, 221 USPQ 669, 673 (Fed. Cir.), *cert. denied*, 469 U.S. 857 (1984); *Railroad Dynamics*, 727 F.2d at 1512, 220 USPQ at 936. Substantial evidence is more than just a mere scintilla; it is such relevant evidence from the record taken as a whole as a reasonable mind might accept as adequate to support the finding under review. *Consolidated Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938); *Perkin-Elmer*, 732 F.2d at 893, 221 USPQ at 673; *SSIH Equip. S.A. v. U.S. Int'l Trade Comm'n*, 718 F.2d 365, 371 n.10, 218 USPQ 678, 684 n.10 (Fed. Cir. 1983). A trial court's denial of a motion for JNOV must stand unless the evidence is of such quality and weight that reasonable and fair-minded persons in the exercise of impartial judgment could not reasonably return the jury's verdict. *Envirotech Corp. v. Al George, Inc.*, 730 F.2d 753, 758, 221 USPQ 473, 477 (Fed. Cir. 1984).

Our precedent holds that the presumption of validity afforded a U.S. patent by 35 U.S.C. § 282 requires that the party challenging validity prove the facts establishing invalidity by clear and convincing evidence. *American Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1360, 220 USPQ 763, 770 (Fed. Cir.), *cert. denied*, 469 U.S. 821 (1984). Thus, the precise question to be resolved in this case is whether Union Oil's evidence is so clear and convincing that reasonable jurors could only conclude that the claims in issue were invalid. *See Perkin-Elmer*, 732 F.2d at 893, 221 USPQ at 673; *Railroad Dynamics*, 727 F.2d at 1511, 220 USPQ at 935.

Anticipation

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *See, e.g., Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 715, 223 USPQ 1264, 1270 (Fed. Cir. 1984); *Connell*, 722 F.2d at 1548, 220

USPQ at 198; *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 771, 218 USPQ 781, 789 (Fed. Cir. 1983), *cert. denied*, 465 U.S. 1026 (1984). Union Oil asserts that the subject claims of the '343 patent are anticipated under 35 U.S.C. § 102(e)[1] by the teachings found in the original application for U.S. Patent No. 4,315,763 to Stoller, which the jury was instructed was prior art.

From the jury's verdict of patent validity, we must presume that the jury concluded that Union Oil failed to prove by clear and convincing evidence that claims 1, 2, and 4 were anticipated by the Stoller patent. *See Perkin-Elmer*, 732 F.2d at 893, 221 USPQ at 673; *Railroad Dynamics*, 727 F.2d at 1516, 220 USPQ at 939. Under the instructions of this case, this conclusion could have been reached only if the jury found that the Stoller patent did not disclose each and every element of the claimed inventions. Having reviewed the evidence, we conclude that substantial evidence does not support the jury's verdict, and, therefore, Union Oil's motion for JNOV on the grounds that the claims were anticipated should have been granted.

The Stoller patent discloses processes for making both urea-phosphoric acid and urea-sulfuric acid fertilizers. Example 8 of Stoller specifically details a process for making 30-0-0-10 urea-sulfuric acid products. There is no dispute that Example 8 meets elements b, c, and d of claim 1, specifically the steps of adding water in an amount not greater than 15% of the product, urea in an amount of at least 50% of the product, and concentrated sulfuric acid in an amount of at least 10% of the product. Verdegaal disputes that Stoller teaches element a, the step of

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[1] Section 102(e) provides:

A person shall be entitled to a patent unless—

. . . .

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent. . . .

claim 1 of "providing a non-reactive, nutritive heat sink." As set forth in claim 2, the heat sink is recycled fertilizer.[2]

The Stoller specification, beginning at column 7, line 30, discloses:

> Once a batch of liquid product has been made, it can be used as a base for further manufacture. This is done by placing the liquid in a stirred vessel of appropriate size, adding urea in sufficient quantity to double the size of the finished batch, adding any water required for the formulation, and slowly adding the sulfuric acid while stirring. Leaving a heel of liquid in the vessel permits further manufacture to be conducted in a stirred fluid mass.

This portion of the Stoller specification explicitly teaches that urea and sulfuric acid can be added to recycled fertilizer, i.e., a heel or base of previously-made product. Dr. Young, Union Oil's expert, so testified. Verdegaal presented no evidence to the contrary.

Verdegaal first argues that Stoller does not anticipate because in Stoller's method sulfuric acid is added *slowly*, whereas the claimed process allows for rapid addition. However, there is no limitation in the subject claims with respect to the rate at which sulfuric acid is added, and, therefore, it is inappropriate for Verdegaal to rely on that distinction. *See SSIH*, 718 F.2d at 378, 218 USPQ at 689. It must be assumed that slow addition would not change the claimed process in any respect including the function of the recycled material as a heat sink.

Verdegaal next argues that the testimony of Union Oil's experts with respect to what Stoller teaches could well have been discounted by the jury for bias. Discarding that testimony does not eliminate the reference itself as evidence or its uncontradicted disclosure that a base of recycled fertilizer in a process may be used to make more of the product.

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[2] Claim 4 is written in terms of approximate percentages of all reactants by weight of the end product. No argument is made that the process of claim 4 would result in a fertilizer product any different from that disclosed by Example 8 of Stoller.

Verdegaal raises several variations of an argument, all of which focus on the failure of Stoller to explicitly identify the heel in his process as a "heat sink." In essence, Verdegaal maintains that because Stoller did not recognize the "inventive concept" that the heel functioned as a heat sink, Stoller's process cannot anticipate. This argument is wrong as a matter of fact and law. Verdegaal's own expert, Dr. Bahme, admitted that Stoller discussed the problem of high temperature caused by the exothermic reaction, and that the heel could function as a heat sink.[3] In any event, Union Oil's burden of proof was limited to establishing that Stoller disclosed the same process. It did not have the additional burden of proving that Stoller recognized the heat sink capabilities of using a heel. Even assuming Stoller did not recognize that the heel of his process functioned as a heat sink, that property was inherently possessed by the heel in his disclosed process, and, thus, his process anticipates the claimed invention. *See In re Oelrich*, 666 F.2d 578, 581, 212 USPQ 323, 326 (CCPA 1981); *In re Swinehart*, 439 F.2d 210, 212-13, 169 USPQ 226, 229 (CCPA 1971). The pertinent issues are whether Stoller discloses the process of adding urea and sulfuric acid to a previously-made batch of product, and whether that base would in fact act as a heat sink. On the entirety of the record, these issues could only be resolved in the affirmative.

On appeal Verdegaal improperly attempts to attack the status of the Stoller patent as prior art, stating in its brief:

> Verdegaal also introduced evidence at trial that the Stoller patent is not prior art under 35 U.S.C. §§ 102(e)/103. Professor Chisum testified that the Stoller patent, in his opinion, was not prior art. . . . This conclusion finds support in *In re Wertheim*, 646 F.2d 527 (CCPA 1981), and 1 Chisum on Patents § 3.07[3].

Appellee Brief at 27 (record cite omitted). Seldom have we encountered such blatant distortion of the record. A question about the status of the Stoller disclosure as prior art did arise at trial. Union Oil asserted that, even though the Stoller patent

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[3] There is no dispute that the percentage of heel described in Stoller meets the percentage of heat sink required by the claims.

issued after the '343 patent, Stoller was prior art under section 102(e) as of its filing date which was well before the filing date of Verdegaal's application. Professor Chisum never testified that the Stoller patent was *not* prior art, but rather, stated that *he did not know* whether it was prior art. An excerpt from the pertinent testimony leaves no doubt on this point:

> Q. (Mr. Sutton): And do you know whether the Stoller patent is prior art to the application of the Verdegaal patent?
>
> A. (Prof. Chisum): I don't know that it is, no.

We find it even more incredible that Verdegaal would attempt to raise an issue with respect to the status of the Stoller patent given that the case was submitted to the jury with the instruction that the original Stoller patent application was prior art.[4] Verdegaal made no objection to that instruction below, and in its appeal briefs, the instruction is cavalierly ignored.

In sum, Verdegaal is precluded from arguing that the Stoller patent should not be considered prior art. *See* Fed. R. Civ. P. 51; *Weinar v. Rollform Inc.*, 744 F.2d 797, 808, 223 USPQ 369, 375 (Fed. Cir. 1984), *cert. denied*, 105 S. Ct. 1844 (1985); *Bio-Rad Laboratories, Inc. v. Nicolet Instrument Corp.*, 739 F.2d 604, 615, 222 USPQ 654, 662 (Fed. Cir.), *cert. denied*, 469 U.S. 1038 (1984).[5]

After considering the record taken as a whole, we are convinced that Union Oil established anticipation of claims 1, 2, and 4 by

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[4] The jury instruction read:

> Stoller filed two patent applications—an original application on October 30th, 1978, and a second on February 7th, 1980. Under the patent laws, the claims of the 343 patent are invalid if you find that the original application (Exhibit BL) anticipates the process claimed in the 343 patent.

[5] Union Oil also argues that Verdegaal's counsel misled the jury by its closing rebuttal argument:

> [B]ut I think it's important to keep in mind that [Stoller] couldn't have been a prior patent because it issued a month after the Verdegaal patent had issued.

clear and convincing evidence and that no reasonable juror could find otherwise. Consequently, the jury's verdict on validity is unsupported by substantial evidence and cannot stand. Thus, the district court's denial of Union Oil's motion for JNOV must be reversed.

Conclusion

Because the issues discussed above are dispositive of this case, we do not find it necessary to reach the other issues raised by Union Oil.[6] In accordance with this opinion, we reverse the portion of the judgment entered on the jury verdict upholding claims 1, 2, and 4 of the '343 patent as valid under section 102(e) and infringed.

REVERSED

We disapprove of Verdegaal's tactic which would form the basis for a grant of a motion for a new trial but for our conclusion that outright reversal of the ruling on the motion for JNOV is in order.

[6] It should not be inferred that all of these issues were properly before us. Union Oil appears to assume that on appeal it may dispute the resolution of any *issue* which is denominated an "issue of law" even though it was not raised in its motion for JNOV. This is incorrect. *See Railroad Dynamics*, 727 F.2d at 1511, 220 USPQ at 934.

Appendix B

United States Court of Appeals
for the Federal Circuit

Appeal No. 86-1258.

Verdegaal Brothers, Inc., William Verdegaal,

George Verdegaal,
Appellees;

v.

Union Oil Company of California,
Brea Agricultural Services, Inc.,
Appellants.

JUDGMENT

On Appeal from the United States District Court
for the Eastern District of California

In Case no(s). CV-F-83-68 REC

This Cause having been heard and considered, it is
Ordered and Adjudged: Reversed

Dated Mar 12 1987

Entered by Order of the Court

/s/ Francis X. Gindhard
Francis X. Gindhart, Clerk

Issued as a Mandate: Apr 3 1987

Appendix C

CROSS-EXAMINATION OF RICHARD BAHME

* * * *

Q. And the 00 means that nothing other than nitrogen and sulfur were present in this particular product—

A. That's right.

Q. —through that example. And since he describes adding urea, moistening it with water, and then adding so many grams of commercial 66 Baume sulfuric acid, it had to be a urea-sulfuric acid adduct or product, did it not?

A. Yes.

Q. And 66 degrees Baume is the same as, by a different terminology, 93 percent sulfuric acid.

A. That's approximately right, yes.

Q. And then further in Stoller, if you will refer to column 7, lines 17 through 38—

A. Line what—I mean column what?

Q. Seven, lines 17 through 38.

A. Yes?

Q. Beginning with the paragraph, "Because of the high intensity of the urea-sulfuric acid reaction," does that not refer to the exothermic nature of the urea-sulfuric acid reaction?

A. No, it doesn't. It says, "Leaving a heel of liquid in the vessel permits further manufacture to be conducted in a stirred fluid mass." In other words, it was ease of stirring. They were putting in a—the acid into straight urea fertilizer; that was very viscous.

Q. And in the Verdegaal process, doesn't the presence of the heel assist in the stirring?

A. It's much more fluid, much more water added.

Q. Depends upon how much heel you have.

A. And how much heel, that's true.

Q. And in fact, doesn't this description wherein he says, "Adding urea in sufficient quantity to double the size of the finished batch," meaning adding it to that batch of already made product, the heel, mean a 50-percent heel?

A. Well, actually, what he's talking about there, it appears, is the addition of granular or pelleted urea plus some acid to a viscous stirred fluid mass, which he was trying to obtain better stirring qualities. In other words, if this had been an important function to him, if he knew about the heat sink, he would have specified it somewhere in his claims or in his—elucidated on it, explained it further in his patent application.

Q. I am directing your attention as one of ordinary skill in the art of chemical reaction to this description and what it tells you. It states, "Because of the high intensity of the urea-sulfuric acid reaction, special procedures are needed to make the concentrated product on a commercial basis." Is that statement referring to high intensity of the urea-sulfuric acid reaction not telling you that that—doesn't—I'll withdraw the question. I mixed it up.

[PAGE OMITTED INTENTIONALLY]

described in this portion A, "Providing a nonreative, nutritive heat sink, capable of dissipating the heat of urea and sulfuric acid, in an amount of at least five percent of the end product"?

A. No, because here he's talking about first of all experimental lab scale in a beaker, secondly—which may not be adapted to large-scale production. And secondly, he still is slowly adding the sulfuric acid while stirring right in that same—where he's doubling the batch.

Q. Are you a prudent experimenter when you work?

A. I hope so.

Q. Are you prudent in the design of anything that you do end up designing, a plant or the like?

A. Of course.

Q. And isn't it still prudent to continue adding sulfuric acid at what is a reasonable rate even though you already have the heel in there to absorb some of that heat or reaction?

A. Well, if that's the case, it still indicates it's an experimental test, then.

Q. What's the rate of addition of sulfuric acid in the Union Oil process?

A. I know it's a rapid addition.

Q. Do you?

A. It's—that's what was in the—as I recall, in the

Appendix D

JURY INSTRUCTIONS

* * * *

To "establish by clear and convincing evidence" means to prove by evidence that is stronger than a preponderance. This does not require proof to an absolute certainty, since proof to an absolute certainty is seldom possible in any case.

The plaintiffs have admitted that the Verdegaals did not make the invention claimed in the 343 patent any earlier than January 1st, 1979.

Stoller filed two patent applications—an original application on October 30th, 1978, and a second on February 7th, 1980. Under the patent laws, the claims of the 343 patent are invalid if you find that the original application (Exhibit BL) anticipates the process claimed in the 343 patent.

Under the patent laws, a patent claim is anticipated, that is, it is not new, when each element of the claim is found, either expressly or inherently described in a single prior art reference. In other words, the reference must be to one document.

Under the patent laws, the claims of the 343 patent are valid unless, before the Verdegaals made the invention in the 343 patent, the same invention was made by someone else who did not abandon, suppress, or conceal it. If you find that either Dr. Young or Union Oil—Dr. Young of Union Oil or Harold Hartung, or both, made the invention claimed in the 343 patent before the Verdegaals and did not abandon, suppress or conceal it, the claims of the 343 patent are invalid.